EXHIBIT 5

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

VISTO,	§
Plaintiff,	§ 8
Tamen,	\$ §
v.	§ CIVIL ACTION NO. 2:05-CV-546
	§
MICROSOFT,	§
	§
Defendant.	§
	§

CLAIM CONSTRUCTION ORDER

In the present action, Visto asserts that Microsoft infringes various claims under three of its patents. Microsoft has counterclaimed and alleges that Visto infringes three of its patents. The parties have filed claim construction briefs presenting their proposed constructions and the Court has held a *Markman* hearing. After considering the relevant briefing and the applicable law, the Court issues this order construing the various claims at issue.

(I) TECHNOLOGY

In this case, Visto asserts claims from three patents against Microsoft and Microsoft asserts three patents against Visto. Visto's patents are: United States Patent No. 6,085,192 (hereafter the "192 Patent"); United States Patent No. 7,039,679 (hereafter the "679 Patent"); and United States Patent No. 6,708,221 (hereafter the "221 Patent"). The '192 Patent is entitled "System and Method for Securely Synchronizing Multiple Copies of a Workspace Element in a Network." Both the '679 and '221 Patents are entitled "System and Method for Globally and Securely Accessing Unified Information in a Computer Network." In a prior case involving Visto, United States District Judge Ward construed several claims in the '192 and '221 patents. See Visto Corp. v. Seven Networks, Inc.,

is settled law that when a patent claim does not contain a certain limitation and another claim does, that limitation cannot be read into the former claim in determining either validity or infringement.") The doctrine, based in part on the presumption of validity, holds that each claim is presumed to have a different scope. 35 U.S.C. § 282; *Curtiss-Wright*, 438 F.3d at 1380. The difference in meaning and scope between claims is presumed to be significant to the extent that the absence of such difference in meaning and scope would make a claim superfluous. *Free Motion Fitness, Inc. v. Cybex Int'l*, 423 F.3d 1343, 1351 (Fed. Cir. 2005). Although a validity analysis is not a regular component of claim construction, if possible, claims should be construed to preserve their validity. *Phillips*, 415 F.3d at 1327; *see also Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999).

With these principles in mind, the Court turns to the patents-in-suit.

II. THE VISTO PATENTS

(A) Overview of the Patents

As set forth above, Visto alleges that Microsoft infringes the '192 Patent, the '221 Patent, and the '679 Patent. The patent application for the '192 Patent was filed on April 11, 1997. The patent issued on July 4, 2000, listing Daniel J. Mendez, Mark D. Riggins, Prasad Wagle, and Christine C. Ying as the inventors. *See* Doc. No. 72, ex. A at 10. On June 18, 2004 a reexamination request was filed with the PTO. Following the reexamination of the '192 Patent the PTO issued a Reexamination Certificate for the '192 Patent on November 22, 2005. *See id.*, ex. A at 2.

The application for the '221 Patent was filed on September 20, 2000. The '221 Patent application was a continuation of the application that led to the '192 Patent. *See* Doc. No. 72, ex. C at 2. The '221 Patent issued on March 16, 2004, listing, inter alia, the same inventors as the '192 Patent. Likewise, the application for the '679 Patent was a continuation of the patent applications

for both the '192 and the '221 patents. *See id.*, ex. D at 2. The '679 Patent issued on May 2, 2006. *See id.*

At the present time the parties dispute eight terms arising in eight claims. Specifically at issue are claims 1, 2, 11, and 22 of the '192 Patent; claim 8 of the '221 Patent; and claims 1, 3, and 11 of the '679 Patent. Those claims are set forth in Exhibit A attached to this Order.

(B) Claim Construction

The parties request that the Court construe eight terms and phrases appearing in the Visto patents. The terms arise out of seven claims in the three patents. Because the patents' incorporate by reference each others applications, and because several terms appear in claims throughout the patents, this Order will not include separate subsections for each of the three patents. The Court construes the contested language as follows:

(a) "initiating steps __ and __" and "initiating the general synchronization module and the synchronization agent"

The term "initiating" appears in claims 1, 11, and 22 of the '192 patent. Claims 1 and 22 use the phrase "initiating steps __ and __" and claim 11 states "initiating the general synchronization module and the synchronization agent." Visto argues that no construction of either phrase is necessary beyond the term "initiating." *See* Doc. No. 72 at 13. Visto asserts that the proper construction of the term "initiating" is "to cause or facilitate the beginning of." *Id.* at 13. On the other hand, Microsoft explains that the Court should construe the phrases as a whole. Thus, Microsoft proposes that the phrases including "initiating" mean "issuing a synchronization request." *See* Doc. No. 78 at 7.

Microsoft supports its construction by arguing that the claim language clearly shows that the

initiating is done by outbound communication from within the firewall and that the specification explains, "since synchronization is initiated from within the firewall, the typical firewall, which prevents in-bound communications, does not act as an impediment to workspace data synchronization." '192 Patent, col.2 ll.45-48. Microsoft also notes the prosecution history supports its interpretation. *See* Doc. No. 78, Ex. E at 5 It argues that Visto distinguished other patents by arguing to the PTO that the "initiating" synchronization limitations may require issuing a synchronization request. *See* Doc. No. 78 at 8.

The Court is unpersuaded. While the prosecution history is relevant to this Court's claim construction, the Court should not narrow a claim "absent the applicant's clear disavowal of claim coverage." See Amgen, 314 F.3d at 1327. Here there was no such "clear disavowal." As Visto points out, the prosecution history referred to by Microsoft never discusses a "request," and instead focuses on where the synchronization is initiated from—i.e. from inside the firewall. Claim 1 of the '192 patent makes clear that initiation of the steps is "from within the firewall." Thus, no further limitation need be read into the term. See Doc. No. 78, ex. E at 5. In addition, the specification of the '192 patent further clarifies that "initiating" is not confined to a "request" because it discusses synchronization as a result of several different events occurring. See '192 Patent, col.5 ll.35-59 ("the synchronization-start module [] may initiate data synchronization upon user request, at a particular time of day, after a predetermined time period passes, after a predetermined number of changes, after a user action such as user log-off or upon like criteria."). In short, if the applicant had wanted to limit "initiating" to "issuing a synchronization request" then he could have simply added such a limitation to the claim language. Here, the claims simply use "initiating." When the patentee has not clearly acted as his own lexicographer and the claim language does not lack sufficient clarity to

ascertain the scope of the claim, this Court should give terms in the claim their ordinary meaning. *See Gart v. Logitech, Inc.*, 254 F.3d 1334, 1341 (Fed. Cir. 2001). As such, the Court defines the term "initiating" to mean "to cause or facilitate the beginning of." No further construction of the phrases "initiating steps __ and __" and "initiating the general synchronization module and synchronization agent" is necessary.

(b) "independently modifiable emails"

Visto argues that this phrase is properly construed as "emails that are capable of being modified independent of each other. The emails do not have to be in the same format." *See* Doc. No. 72 at 15. On the other hand, Microsoft proposes that the phrase should be construed as "multiple copies of an email that are capable of being modified independent of each other. The copies do not have to be in the same format." Microsoft argues that the claim language indicates that the emails are simply copies of the same email throughout the process of synchronization. Microsoft explains that "independently modifiable emails" are simply one type of "independently modifiable copies." *See* Doc. No. 78 at 9. Therefore, Microsoft couches the issue as whether "independently modifiable emails" means copies that can be independently modified, or whether it refers to the synchronization of separate and unrelated emails. *See* Hr'g Tr. at 39-40. The Court finds that the issue is not so black and white.

Here, claim 1 only refers to "independently modifiable e-mails." However, the specification of the '679 Patent makes clear that selected *portions* of workspace data are synchronized by the invention. *See, e.g.*, '679 Patent, col.2 ll.59-62 (making clear that the client is intended to "synchronize selected portions of the first set of workspace data with the global server, which stores independently modifiable copies of the selected portions."); col.3 ll.18-23 ("The base system and

synchronization agent automatically establish a secure connection there between and synchronize the selected portions of the first set of workspace data stores on the client and the second set of workspace data stored on the global server"); see also col.4 ll.13-15. Visto argues, therefore, that the specification teaches that the emails do not have to be entire copies of each other. As Visto explains, Microsoft's construction improperly limits the claim to entire copies of an email. See Doc. No. 72 at 15. While the Court does find that such a construction would be inconsistent with the intrinsic evidence, it also notes that the "portions" of workspace data discussed in the specification does not refer to portions of individual emails. Instead, the specification language refers to the limited portions of all workspace data that require synchronization. See '679 Patent, col.2 ll.62; col.6 ll.33-36. With this understanding, the Court considers the breadth of "independently modifiable emails."

Microsoft seeks to narrowly limit the term to complete copies of an email. However, the Court finds that a construction that omits Microsoft's proposed limitation is in line with Judge Ward's previous order. Judge Ward construed a similar term, "independently modifiable copy," in Visto's '708 patent. Judge Ward concluded that the term meant "a copy of a workspace element capable of being modified independent of the workspace element. The copy of the workspace element does not have to be in the same format as the workspace element." Here, the Court finds that the appropriate construction of "independently modifiable email" should recognize that the word copy is replaced with "email" and there is no reason to conclude that the replacement of copy with email requires synchronization of only complete emails. On the other extreme, however, the Court finds that Microsoft is correct to the extent that the patent does not refer to the synchronization of completely separate emails. Visto's broad proposal could possibly lead to such a conclusion.

Therefore, the Court adopts Visto's definition with the following modification. "Independently modifiable emails" means "emails that are capable of being modified independent of each other. The emails cannot be unrelated and do not have to be in the same format."

(c) "independently modifiable [copy/email]

The next related term is "independently modifiable [copy/email]." This term is found in claims 1, 11, and 22 of the '192 patent and in claims 1, 3, and 11 of the '679 patent. The underlying phrase "independently modifiable copy" was construed by Judge Ward to mean "a copy of workspace element capable of being modified independent of the workspace element. The copy of the workspace element does not have to be in the same format as the workspace element." This Court has just construed "independently modifiable email" as meaning "emails that are capable of being modified independent of each other. The emails cannot be unrelated and do not have to be in the same format."

Given these constructions, Visto argues that no additional construction is necessary. Further, Visto notes that "independently modifiable" is apparent to one of ordinary skill in the art. In sum, Visto argues that Judge Ward has already construed "independently modifiable" when he construed "independently modifiable copy." Under that construction, "independently modifiable" would simply mean "capable of being modified independent of the workspace element." Alternatively, Microsoft urges the Court to adopt the construction "[a copy/email] that the user can modify without modifying another [copy/email]." Microsoft argues that this construction necessarily includes the limitation that "independently modifiable [copy/email]" does not include transient copies that the user cannot directly change. Microsoft argues that the specification makes clear that such transient copies, which are generated during the synchronization process, are not the copies that must be

synchronized following modification. The Court finds that the real issue here stems from the archnemesis of every first year law student—the passive voice. Due to the language chosen to construe "independently modifiable copy" and "independently modifiable emails," the question remains: capable of being modified independently by what or whom?

As noted, Microsoft relies on the specification to support its proposed limitation that independently modifiable emails or copies must be modified by the user. Visto, however, again argues that Microsoft is improperly attempting to add a copy requirement to the claim. *See* Hr'g Tr. at 17. The Court notes that the specification of the '192 patent seems to imply that independently modifiable copies are maintained and modified by users. *See, e.g.*, '192 patent, col.1 ll.31-33; col.1 ll.46-48; col.2 ll.34-37. However, the Court cannot conclude that these implications in the specification are a clear disavowal of modifications made by something other than the user. *See Phillips*, 415 F.3d at 1316 (noting that an inventor has dictated a claim's scope when the specification reveals an intentional disavowal of a certain definition). Therefore, no further construction of this term is necessary and, unfortunately, the indefiniteness created by the use of the passive voice remains.

(e) "server"

Relying on a technical dictionary, Visto argues that the term "server" means "a computer that provides services to another computer." *See* Doc. No. 72 at 11-12. Visto explains that the technical definition it proposes is most consistent with the specification of the '192 and '221 patents as well as other intrinsic evidence. Microsoft relies on the Microsoft Press Computer Dictionary and proposes that a "server" is "a computer or program that responds to commands from a client." Microsoft also defines "client" as "a computer that accesses shared network resources provided by

the server."

In support of its position, Microsoft explains that the term "server" is a term of art in the computer networking field that is more limited than the ordinary understanding that something which serves is a server. *See* Doc. No. 78 at 16; Hr'g Tr. 46. However, Microsoft's proposed construction includes a limitation that the server respond to commands. The Court finds that the specification does not reveal any requirement that the server respond only to a command and not merely a request. In fact, the specification repeatedly refers to requests to the server. *See, e.g.,* '221 Patent, col.3 II.6-8; '679 Patent, col.7 II.7-9. One skilled in the art would generally understand that a client makes requests to a server and the specification clearly supports this understanding. *See Phillips*, 415 F.3d at 1313 ("[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.").

On a separate note, the Court finds that there is no support in the specification for Microsoft's proposed definition of a client. The specification demonstrates that a client is tied to the task of sending service requests to a server. *See, e.g.*, '221 Patent, col.3 ll.6-9; '679 Patent, col.3 ll.10-17. As a result, the Court adopts Microsoft's proposed construction with the following modifications. The term "server" is construed as "a computer or program that responds to commands or requests from a client. A client is a computer or program that sends commands or requests to the server."

(f) "Internet"

The term "Internet" appears in claim 22 of the '192 patent and in claim 1 of the '679 patent. Microsoft argues that the Court should construe "Internet" as "the worldwide, publicly accessible network that connects other networks, such as corporate, university, and government networks."

Visto argues that no construction of this term is necessary. However, Visto also explains that if construction is necessary it would not object to Microsoft's proposal if it were modified to read, "a network that connects other networks, such as corporate, university, and government networks."

Microsoft explains that the issue is whether "Internet" is the public, worldwide internet, or whether it can be some other private, trusted network behind a firewall. *See* Doc. No. 78 at 18. Microsoft argues that the patents limit "Internet" to the worldwide, publicly accessible internet because they refer to the "Internet" with a capital "I" and because they concern synchronizing data with a mobile device that may be all over the country. Therefore, Microsoft argues that it only makes sense that the patents are referring to the worldwide web and not merely to a private network. *See, e.g.*, Hr'g Tr. 50.

Microsoft also argues that Judge Ward's construction of "firewall" implicitly supports its position because Judge Ward discussed the broad ability of the firewall to "protect[] an organization's network against external threats, such as hackers, coming from another network, such as the Internet." On the other hand, Visto argues that Judge Ward's construction supports *its* position because it mentions external threats coming from "*another network*." *See* Doc. No. 72 at 19. Visto explains that Judge Ward's construction confirms that internet does not inherently refer to a worldwide or publicly accessible network. *See id*.

The Court finds that the term "Internet" does warrant construction. However, the Court rejects Microsoft's proposed limitation that "Internet" is a worldwide, publicly accessible network. As Visto points out, the patents do not exclusively use the capitalized version of "internet." *See, e.g.*, '679 Patent, col.1 ll.59. In addition, Microsoft's own dictionary definition makes no mention of a network that is publicly accessible. In fact, the dictionary states:

internet . . . 1. Any network that connects other networks; 2. **Internet**. a large network of this type that covers the U.S. and extends to Canada, Europe, and Asia, providing connectivity between governments, universities, and corporate networks and hosts.

ACADEMIC PRESS DICTIONARY OF SCIENCE & TECHNOLOGY (1992).

Finally, the specifications of the patents do not support Microsoft's proposal. While the patents anticipate synchronization to occur in remote areas via computer networks such as the Internet, there is no requirement that it be a global or publicly accessible network. As a result, "Internet" means "a network that connects other networks, such as corporate, university, and government networks."

(g) "storing the preferred version at the first store and the second store"

Visto argues that no construction of this phrase is necessary as the meaning is apparent to one of ordinary skill in the art. On the other hand, Microsoft argues that it is properly construed as "transmitting the preferred version to the first and second store." Microsoft explains that the word storing can refer to either actively or passively storing. *See* Hr'g Tr. 52. Microsoft argues that storing in the sense used here refers to actively storing—i.e. transmitting. Microsoft draws its proposed construction from Judge Ward's construction of the means-plus-function term, "means for storing the preferred version," and argues that Judge Ward construed "storing" as "transmitting."

The Court finds that Judge Ward's order does not limit "storing" to "transmitting." Judge Ward explained that "[i]n the context of claims 10 and 11 of the '192 patent . . . it appears that the patentee used the term 'storing' in the sense associated with the transmission of the preferred versions to the two memory stores." *See* Ward Order at 30. Given the fact that Judge Ward stated that "storing" is simply *associated* with the act of transmitting the preferred versions, the Court cannot conclude that he intended to limit the term "storing" to "transmitting." Thus, notwithstanding the fact that Judge Ward was identifying the function of a means-plus-function limitation, his

statement simply emphasized the fact that "storing" is used in the active sense in the claims of the '192 patent. *See* Ward Order at 30-31.

Furthermore, this recognition is furthered by the fact that Judge Ward limited the corresponding structure to the software that performed the act of storing. *See id.* at 30. One of ordinary skill in the art would understand the distinction between *storing* a preferred version and *transmitting* the same. For example, a preferred version may be stored without transmitting the entire version, but rather by transmitting only a modified portion of the data. The '192 patent's specification makes clear that its methods are intended to store the preferred versions at the first and second stores in the active sense of the word "store." *See, e.g.*, '192 Patent, col.5 ll.60-65. Therefore, the Court concludes that "storing the preferred version at the first store and at the second store" means "actively storing the preferred version at the first and second store."

(h) "normally open . . . firewall port"

The phrase "normally open LAN firewall port" appears in claim 1 of the '679 patent. Visto urges the Court to construe "normally open . . . firewall port" as "a port that is typically configured to be open for packet traffic in a firewall. Ports 80 and 443 are examples of normally open ports." On the other hand, Microsoft argues that a more appropriate construction is "a port that is typically configured to allow all messages addressed to the port to pass through."

The Court finds that Microsoft's proposal is unsound for several reasons. First, Microsoft's proposal differs from Visto's interpretation in that it refers to messages instead of packets of data. The Court finds that the specification clearly supports Visto's construction, *see* '679 Patent, col.11 ll.31-33, and Microsoft ostensibly concedes this point. *See* Doc. No. 78 at 18 n.4. As a technical matter, Microsoft's construction is also inaccurate in the sense that it states messages are addressed

to the port. As Visto properly points out, it is understood that data is actually sent using a specific protocol which has a port number associated therewith. *See also* Doc. No. 83, ex. B.

Additionally, the parties disagree about the meaning of "normally open." Microsoft argues that the port is not open unless it allows all data packets sent to the port to pass through. However, the Court cannot conclude that the specification contains such a limitation. While Microsoft is correct in pointing out that the purpose of the patent is to utilize ports that are normally open, it does not necessarily follow that all packets must be able to pass through all the time. In fact, one skilled in the art would understand that ports could be open for certain types of packets—this understanding is consistent with Visto's construction. Further, the Court is unable to find any language in the specification that support's Microsoft's proposal and feels that such a construction would render the claim language "normally open" superfluous.

Finally, the parties disagree as to whether the claim construction should note that ports 80 and 443 are examples of normally open ports. Microsoft argues that Visto is improperly asking the Court to make factual findings as to whether these ports refer to normally open firewall ports. However, the claims of the '679 patent specifically refer to a normally open port as an HTTP or HTTP (SSL) port. '679 Patent, claim 2, 3. In addition, the specification provides support the claim language. For example, column 10 of the '679 patent notes that HTTP is a commonly enabled protocol and that the system can use the SSL port to establish a secure communication channel. One skilled in the art would generally recognize that the HTTP port is port 80 and that the SSL port is port 443. Therefore, the Court construes "normally open LAN firewall port" to mean "a port that is typically configured to be open for packet traffic in a firewall. Ports 80 and 443 are examples of normally open ports."

record in a sorted list." *See* Doc. No. 77 at 40 (citing '691 Patent, col.1 ll.58-60). The Court finds that Visto is misplaced to the extent that outputting a data record must be in a sorted list. Tellingly, and as noted above, there is no requirement that data output even include multiple data records. Therefore, "outputting said data record from the computer system memory in accordance with the filing identifier" is properly construed as "outputting the data record based on the filing identifier."

IV. CONCLUSION

Accordingly, the Court hereby **ORDERS** the disputed claim terms construed consistent herewith.

SIGNED this 28th day of August, 2007.

DAVID FOLSOM

UNITED STATES DISTRICT JUDGE

EXHIBIT A

Set forth below are the claims in the Visto patents. Disputed terms are set forth in boldface type. Where necessary independent claims are included to provide context to an asserted dependent claim.

The claims in the '192 Patent that are relevant to this claim construction order are:

- 1. A computer-based method comprising the steps of:
- (a) establishing a communications channel through a firewall using an HTTP port or an SSL port;
- (b) generating first examination results from first version information which indicates whether a first workspace element stored at a first store within the firewall has been modified;
- (c) generating second examination results from second version information which indicates whether an independently-modifiable copy of the first workspace element has been modified, the copy being stored at a second store on a smart phone outside the firewall;
- (d) **initiating steps (b) and (c)** from within the firewall through the communications channel when predetermined criteria have been satisfied;
- (e) generating a preferred version from the first workspace element and from the copy based on the first and second examination results, wherein if only one of the first workspace element and the copy has been modified, the step of generating includes selecting the one as the preferred version; and
- (f) storing the preferred version at the first store and at the second store.

 10. A system comprising:
- a communications channel through a firewall comprising one of an HTTP port and an SSL port;
- a general synchronization module for operating within the fast firewall and for examining first version information to determine whether a first workspace element at a first store has been modified;
- a synchronization agent for operating outside the first firewall and for forwarding to the general synchronization module second version information which indicates whether an **independently modifiable** copy of the first workspace element at a second store on a smart phone has been modified;
- a synchronization-start module for operating within the first firewall and for **initiating the general synchronization module and the synchronization agent** when predetermined criteria have been satisfied;

means for generating a preferred version from the first workspace element and from the copy by comparing the first version information and the second version information, wherein if only one of the first workspace element and the copy has been modified, then the means for generating selects the one as the preferred version; and

means for storing the preferred version at the first store and at the second store.

11. The system of claim 10 further comprising a communications module for communicating through the first firewall, wherein the first firewall is positioned between a trusted network and

the Internet.

- 22. A computer-readable storage medium storing program code for causing a computer-based system to perform the steps of,
- (a) generating first examination results from first version information which indicates whether a first workspace element stored at a first store within a firewall positioned between a trusted network and the **Internet** has been modified;
- (b) generating second examination results from second version information which indicates whether an independently-modifiable copy of the first workspace element has been modified, the copy being stored at a second store on a smart phone outside the firewall;
- (c) **initiating steps (a) and (b)** from within the firewall through an **Internet** communications channel when predetermined criteria have been satisfied;
- (d) generating a preferred version from the first workspace element and from the copy based on the first and second examination results, wherein if only one of the first workspace element and the copy has been modified, then selecting the one as the preferred version; and
 - (e) storing the preferred version at the first store and at the second store.

The claims in the '679 Patent that are relevant to this claim construction order are:

- 1. An e-mail system for providing synchronized communication of independently modifiable e-mails over an Internet between a local area network (LAN) server secured by a LAN firewall with at least one normally open LAN firewall port, and each of a plurality of smart-phone devices, said system comprising: a global server secured by a global server firewall having a global server firewall port therein; a first Internet communication channel coupling said LAN server to said global server through said open LAN firewall port and said global server firewall port; a plurality of second Internet communication channels, each coupling said global server to a respective one of said smart-phone devices; at least one translator for translating e-mail data of different formats such that e-mails transmitted to said global server and said smart-phone devices are of a format or formats which are acceptable thereto; at least one storage device for storing version information indicating differences between independently modifiable e-mails; a general synchronization module responsive to a synchronization start command to synchronize different independently modifiable e-mails; and a synchronization-start module coupled to said general synchronization module, said synchronization-start module being responsive to an existence of predetermined criteria to produce and send a synchronization start command to said general synchronization module.
- 3. A system, according to claim 1, wherein the normally open port is an HTTPS (SSL).
- 11. A system, according to claim 1, wherein said translator is located at one or more of said plurality of said smart-phone devices.

The claim in the '221 Patent that is relevant to this claim construction order is:

8. A system for synchronizing workspace data, comprising: means for storing first workspace

data on a first device; means for storing second workspace data on a second device; means for determining differences between the first workspace data and the second workspace data; means for storing the differences at a global **server**; and means for sending the differences from the global **server** to the second device.